

**OFFICIAL FILING  
BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN**

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Application of Highland Wind Farm, LLC for a  
Certificate of Public Convenience and Necessity  
To Construct a 102.5 MW Electric Generation  
Facility and Associated Electric Facilities, to be  
Located in the Towns of Forest and Cylon,  
St. Croix County, Wisconsin

Docket No. 2535-CE-100

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**PETITION TO REOPEN, OR IN THE ALTERNATIVE, FOR REHEARING**

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**INTRODUCTION**

On March 15, 2013 the Commission issued its Final Decision in this docket denying Highland Wind Farm LLC's ("Applicant") request for a CPCN to construct a 102.5 MW wind project in the Town of Forest in St. Croix County, Wisconsin ("Project"). The Application was rejected because of a mistaken concern that the Project, as designed, will not operate in compliance with the PSC 128.14(3)(a) 45 dBA nighttime limit assuming worst case conditions through use of a 0.0 ground factor in the modeling. Final Decision, pp. 8-10. In the Final Decision the Commission invited the Applicant to seek reopening or rehearing of this proceeding if it could "demonstrate through sound modeling using a ground absorption coefficient of 0.0 that the project as designed and operated will not, based upon the model results, have any nonparticipating residences that exceed the Wis. Admin. Code § PSC 128.14(3) nighttime audible noise limit of 45 dBA." Id. at 10. In response to the Commission's invitation, Applicant respectfully requests that the Commission reopen or, in the alternative, rehear this proceeding so that Applicant can make such a demonstration.

In the Final Decision the Commission concluded there was insufficient evidence in the record to show turbine operations could be curtailed to meet the PSC 128.14 nighttime sound limits. Final Decision, pp. 9-10. Relying on evidence already contained in the record and supplemented with new sound models and new evidence concerning the curtailment capabilities of the turbines being considered<sup>1</sup> Applicant is prepared to demonstrate the Project can be modeled and operated in a manner which produces no exceedances of the 45 dBA nighttime limit for any nonparticipating residences. The technological capabilities of the turbines being considered are such that the Project, as designed, can and will operate in compliance with the PSC 128 noise standards. Further, for the six sensitive residences, the turbines can be operated to meet a 40 dBA nighttime standard as suggested by Chairman Montgomery. To demonstrate this, the Commission need only look to the sound modeling runs Applicants recently submitted using a 0.0 ground factor, which establish that the Project can be operated to handle the worst case scenario in full compliance with the noise limits established in PSC 128.14(3). *See* Blank Aff., Exs.-HWF-Blank-3 and 4 (PSC Ref. ##181221, 181222 and 181281). Based upon the new sound model runs and the new evidence detailing the curtailment abilities of the turbines being considered, and subject to a fair but reasonable opportunity for cross-examination and any material countervailing evidence, the Commission should approve the Application subject to the condition that the noise limits established in PSC 128.14(3) are met, and if necessary, that the Applicants provide periodic evidence of such compliance.

Aside from the noise standard compliance issue, the Final Decision did not reveal any issues which would cause any of the Commissioners to deny the Application. To the extent there

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<sup>1</sup> This new evidence consists of the affidavits submitted with Applicant's Emergency Request, filed February 22, 2013, and the 2<sup>nd</sup> Affidavit of Tim Osterberg, attached hereto, which collectively demonstrate the ability of the Project to meet the 45 dBA nighttime noise standard through automatic operational curtailment and a conservatively high estimate of the impact of such curtailment on overall system operations.

were concerns about other issues, the Commission discussed a number of conditions that would meet them. Applicant welcomes the imposition of those conditions as further discussed below.

**I. THE COMMISSION HAS INDEPENDENT AUTHORITY TO REOPEN THIS CASE PURSUANT TO WIS. STAT § 196.39(1).**

Under Wis. Stat. § 196.39(1), the Commission has explicit authority to “reopen any case following issuance of an order in the case, *for any reason*.” (Emphasis added.) Indeed, it is not uncommon for the Commission to respond to a petition for rehearing by exercising its independent authority to reopen a matter pursuant to Wis. Stat. § 196.39(1). See, e.g., *Wis. Public Service Corp. Rate Case*, Docket No. 6690-UR-119, Order Amending Final Decision (Feb. 24, 2009) (PSC REF#: 108565); *Kewaunee Nuclear Power Plant*, Docket No. 05-EI-136, Order to Reopen (Jan. 21, 2005) (PSC REF#: 27004). That same result would be appropriate here for the reasons set forth herein.

The Commission’s denial in this proceeding was based on uncertainty regarding the Applicant’s ability to comply with a new set of wind siting standards, in the first proceeding in which the Commission has been called upon to interpret the new standards. In addition, the Commission specifically noted in its Final Decision that reopening or rehearing would be an appropriate procedural vehicle for introducing additional evidence related to noise modeling, operational curtailment, and the 45 dBA nighttime noise standard. Final Decision, p. 10. As such Applicant respectfully requests that the Commission reopen this proceeding pursuant to Wis. Stat. § 196.39(1) so that Applicant can demonstrate the Project’s ability to comply with the nighttime sound limit set forth in PSC 128.14(3)(a).

**II. APPLICANT IS ENTITLED TO REHEARING PURSUANT TO WIS. STAT §§ 227.49 AND 196.39(2).**

In the alternative the Commission could rehear this case. Wis. Stat. § 196.39(2) provides that “an interested party may request the reopening of a case under s. 227.49.” Section 227.49,

in turn, describes the process for seeking rehearing of a contested matter and provides that rehearing may be granted based on: a “material error of law;” a “material error of fact;” or the “discovery of new evidence sufficiently strong to reverse or modify the order, and which could not have been previously discovered by due diligence.” Wis. Stat. § 227.49(3). This standard requires that Applicant outline in its Petition any relevant factual or legal errors that justify rehearing. Accordingly, the following discussion outlines those issues and preserves Applicant’s rights in the unfortunate event of an appeal. Nevertheless, as described above, the Commission need not address the standards for rehearing in the event it exercises its independent authority to reopen this case pursuant to Wis. Stat. § 196.39(1). In the Final Decision, the Commission denied approval of Applicant’s CPCN based on a combination of material factual and legal errors that can be resolved by the presentation of additional evidence, as the Commission invited. As explained below, Applicant meets the standards set forth in Wis. Stat. § 227.49 and the Commission should grant rehearing, reverse its Final Decision, and approve the CPCN with appropriate conditions.

The purpose of rehearing an administrative decision is to enable the agency to correct any errors it made in the proceeding before the case goes any further in the adjudicative process. *Village of Cobb v. Public Service Commission*, 12 Wis.2d 441, 458, 107 N.W.2d 595 (1961); *Wisconsin Dept. of Revenue v. Hogan*, 198 Wis.2d 792, 809, 543 N.W.2d 825 (Ct. App. 1995). Any person aggrieved by a final Commission decision may request rehearing by filing a written petition within 20 days after service of the decision. Wis. Stat. §§ 196.39, 227.49(1).<sup>2</sup> The Commission shall act on the petition within 30 days; failure to act within 30 days is deemed a denial of the petition for rehearing. Wis. Stat. § 227.49(6).

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<sup>2</sup> The Final Decision was served March 15, 2013; this Petition is timely.

If the Commission grants a rehearing, it has discretion to direct the proceedings. *Id.* (“Proceedings upon rehearing shall conform as nearly may be to the proceedings in an original hearing except as the agency may otherwise direct.”) Indeed, a rehearing may be granted for a limited purpose only, rather than to rehear the entire matter. See *Application of CenturyTel of Central Wisconsin, LLC*, PSCW Docket Nos. 2055-TR-102 & 5846-TR-102, Decision to Grant Rehearing, (November 12, 2002) (PSC REF#: 5101) (noting “the Commission has authority under Wis. Stat. § 227.49 to order a rehearing in this proceeding for a limited purpose”). Moreover, further proceedings in a reopened administrative matter are considered part of the original action, and the agency may base its decision on the record of the original hearing as well as on any evidence presented at rehearing. *Village of Prentice v. Transportation Comm'n of Wis.*, 123 Wis.2d 113, 122-23, 365 N.W.2d 899 (Ct. App. 1985).

As noted above, the Commission can also grant rehearing based on a material error of fact or law, or the discovery of new evidence. Wis. Stat. § 227.49(3). If based on newly discovered evidence, that evidence must be sufficiently strong to change or modify the outcome of the case. See, e.g., *Village of Menomonee Falls v. Wisconsin Dept. of Natural Resources*, 140 Wis.2d 579, 608-09, 412 N.W.2d 505 (Ct. App. 1987). The petitioning party’s failure to timely admit testimony into evidence must not have been the result of a lack of due diligence. *Schwartz v. Wisconsin Dept. of Revenue*, 2002 WI App 255, 258 Wis.2d 112, 653 N.W.2d 150.

Applicant is prepared to present additional evidence that affirmatively demonstrates that the Highland project can be operated as designed to meet the 45 dBA nighttime noise limit under a worst case scenario. This evidence is sufficiently strong to change or modify the outcome of the case and satisfies the standard for seeking rehearing. Under the circumstances described herein, it would be unreasonable to conclude that Applicant’s failure to anticipate and

preemptively meet the Commission's newly established threshold filing requirement<sup>3</sup> constituted a lack of due diligence. This is particularly true in light of Chairman Montgomery's statement that the record in this proceeding was already overly, and unnecessarily, voluminous. Osterberg Aff., Ex.-HWF-Osterberg-1, pp. 3-4 (PSC Ref. # 181224).<sup>4</sup> The alternative to granting reopening or rehearing would be the Applicant's submission and the Commission's review of a complete CPCN application for the sole purpose of addressing a narrow issue that can be properly addressed with minimal additional process. Requiring the Applicant to begin the CPCN process anew under these circumstances would unnecessarily tax the resources of the Commission, the Applicant, and the interveners.

While the Applicant strongly believes that reopening under Wis. Stat. § 196.39 is more appropriate as a problem solving mechanism in this case, rehearing under Wis. Stat. § 227.49 could be justified on the basis of the following potential material errors of fact and/or law:

- The Commission's conclusion that Applicant was required to demonstrate through modeling that noise levels will not exceed 45 dBA under a worst case scenario without curtailment impermissibly renders superfluous the Commission's own regulations that permit noise levels up to 50 dBA during daytime hours. *State ex rel. Kalal v. Circuit Court*, 2004 WI 58 ¶¶ 45-46, 271 Wis. 2d 633, 681 N.W.2d 110 ("statutory language is interpreted in the context in which it is used; not in isolation but as part of a whole; in relation to the language of surrounding or closely-related statutes; and reasonably, to avoid absurd or unreasonable results") (citations omitted).
- The Commission's conclusion that Applicant was required to demonstrate through modeling that noise levels will not exceed 45 dBA under a worst case scenario without curtailment impermissibly contradicts the Commission's own regulation that allows operational curtailment as a noise mitigation strategy. *Id.*
- At the end of a year-long process, the Commission adopted, and implemented, a new threshold filing requirement. Reliance on this new "announced agency policy" that contradicts the Commission's prior treatment of wind energy system CPCN requests, and finds no support in any prior Commission proceeding or the

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<sup>3</sup> The filing of a sound model run using a 0.0 ground factor showing no exceedances of the 45 dBA nighttime limit at non-participating residences.

<sup>4</sup> Mr. Osterberg submitted an affidavit and Exs.-HWF-Osterberg-1 to 4 (PSC Ref. ## 181223 through 181230) in support of Applicant's emergency request for reconsideration. Applicant respectfully requests the Commission consider Mr. Osterberg's previously filed affidavit and exhibits in connection with this Petition.

Commission's own wind energy system Noise Protocol, arguably constituted improper rulemaking. *See Schoolway Transp. Co., Inc. v. Division of Motor Vehicles*, 72 Wis. 2d 223, 233-34, 237, 240 N.W.2d 403 (1976).

- Substantial evidence in the record demonstrates that the turbine models under consideration have the capability to operate in a reduced power mode that would reduce noise output by the few decibels needed to bring overall noise levels below 45 dBA under a worst case scenario, in contradiction to the conclusion in the Final Decision.
- The circumstances under which the Commission crafted and applied a new threshold filing requirement at the end of this proceeding, and refused to consider additional pertinent evidence Applicant sought to present in order to satisfy the new requirement, deprived Applicant of due process. *Aurora Consol. Health Care v. LIRC*, 2012 WI 49, ¶ 71, 340 Wis. 2d 367, 814 N.W.2d 824. ("In an administrative proceeding, the ultimate test to determine whether due process of law has been accorded a party is the presence or absence of fair play.") (internal quotes and cite omitted).
- The Commission relied on an erroneous interpretation of its own regulations in concluding that neighboring landowners have the burden of demonstrating noncompliance with the noise standards. The opposite is true; Wis. Admin. Code § PSC 128.14(4)(b) requires the owner of the wind project to test for compliance "upon receipt of a complaint regarding a violation of the noise standards in sub. (3)(a)."

### **III. THE PROJECT WILL MEET THE APPLICABLE NOISE STANDARD.**

#### **A. The Rules Contemplate Curtailment Of Operations To Comply With Sound Limits, And Highland Will Curtail Its Operations To Comply**

Commissioner Nowak indicated in her comments at the February 14, 2013 Open Meeting that the models using a 0.0 ground factor supported denial of the CPCN, because they demonstrate an inability for the Project to comply with PSC 128 standards "without curtailing production." Ex.-HWF-Osterberg-1, p. 11. However, in its Final Decision the Commission recognized operational curtailment could be used to achieve compliance with the PSC 128.14 sound limits. Final Decision, p. 9. The Commission was correct in this regard because Wis. Admin. Code § PSC 128.14 *specifically allows curtailment for compliance with the sound standards*: "Methods available for the owner to comply with sub. (3) **shall** include operational curtailment of one or more wind turbines." PSC 128.14(4)(c) (Emphasis added). In short, the Project must be given a chance to comply with the noise standard by curtailing production,

especially where, as here, the Project is otherwise compliant with the other CPCN standards. That is precisely what the Commission recognized when it issued its Final Decision in the *Glacier Hills* proceeding. There, the Commission specifically allowed “operational curtailment of the turbine or turbines contributing to the exceedance of the noise limits” as one of the “methods available for WEPCO to comply with both the daytime and nighttime noise limits.” Docket No. 6630-CE-302, Final Decision, pp. 24, 50 (Jan. 22, 2010) (PSC REF#: 126124).

The record as it stands shows that the turbines being considered for the Project are some of the quietest and technologically advanced turbines on the market today, and that they can be programmed to comply with noise limitations. Tr. Vol. 3, pp. 64-65; Ex.-HWF-Mundinger-1, App. E, Siemens 2.3 Brochure, p. 5, Nordex N117 Powerpoint, p. 10. Each of these turbines is individually programmable to automatically curtail its operation when certain wind speed and direction conditions exist. The Nordex technical specifications describe this capability in some detail:

Depending on the wind farm’s specific requirements, individual technical or regulatory specifications to the operation control can be made. These can be partial reductions or shutdowns. For example, the wind turbine can be operated noise optimized or its output can be limited if the feed-in power of the grid is reduced. Limited modes of operation based on a defined time schedule or depending on the wind direction are also possible.

*Id.* at App. E, Technical Description, p. 34. This technology is quite similar to other more conventional generation types that are programmed to follow load. Such units ramp up and down automatically as necessary to maintain the reliability of the system.

Both the Nordex N117 and Siemens 2.3 turbines have the capability to be run at power output levels significantly lower than full capacity and it is clear from the power curves already



in the record that sound levels decrease with decreases in power levels. Ex.-HWF-Hankard-3.<sup>5</sup> In fact, the power curves already in the record depict exactly how much noise reduction occurs at different reductions of power output levels. Using those power curves, the operator calculates at what wind speed and direction an exceedance of the PSC 128 sound level will occur for a given receptor, and programs the power curtailment into the turbine in order to assure no exceedances are experienced. By programming the individual turbines to automatically ramp down to a predetermined level at such time as existing wind speed and direction would cause an exceedance of the 45 dBA limit, the Project, without operator intervention, will automatically reduce output to comply with the sound limit. Applicants' consulting experts contemplated that operational curtailment could be used, if necessary, to bring individual noise impacts below 45 dBA. Direct-HWF-Blank-22; Direct-HWF-Hankard-12; Tr. Vol. 7, p. 1095.

As Chairman Montgomery noted, the Commission does not expect parties to weigh down the record by asking witnesses questions about information that can easily be gleaned from filed exhibits. Ex.-HWF-Osterberg-1, p. 4. The Applicants endeavored to honor this expectation throughout this proceeding, and avoided introducing what appeared to be unnecessary technological details of the turbine curtailment procedure in live testimony, since the capability to operate the turbines in a reduced capacity based on wind conditions can be gleaned from the exhibits.<sup>6</sup> In fact, none of the interveners challenged or countermanded the Applicant's capability to use curtailment to meet the 45 dBA regulatory limit. Instead, they focused their

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<sup>5</sup> For example the Nordex N117 Power Curve data provides sound data for two different levels—0 and 1 with zero at full output and 1 in a reduced mode of 1750 kW. The level 1 data shows much lower sound emissions. The highest sound level in the reduced mode is 101dBA whereas at full output it is 105 dBA. Ex.-HWF-Hankard-3, Nordex Power Curve, pp. 2-3. Similar data is included in the Siemens 2.3 power curve data. The Siemens power curve calculates noise levels for six different levels of output and shows a 1 dB drop for each reduced level of power output. *Id.*

<sup>6</sup> Furthermore, Ms. Blank and Mr. Hankard both testified that the turbines' noise reduction mode could be used to bring noise levels below 45 dBA, if necessary due to worst-case scenarios. Direct-HWF-Blank-22; Direct-HWF-Hankard-12; Tr. Vol. 7, p. 1095.

attacks on the Commission's adoption of 45 dBA as the regulatory standard and the potential for sporadic, momentary exceedances, not whether the Applicant would be able to operate the Project in a manner that will ensure compliance.<sup>7</sup>

In short, Applicant provided sufficient evidence that the turbines being considered are technologically capable of being programmed so that no exceedances of the PSC 128.14 limits at non-participating residences will occur. It would be unreasonable to conclude that Applicant should have anticipated Commissioner Nowak's concerns and included additional technological details about the curtailment process, or that the failure to introduce additional technical documentation represented a lack of due diligence. To further demonstrate each turbine's curtailment capabilities, Applicants have provided additional documentation from the turbine manufacturers describing how the turbines can operate in the manner described above. *See* Osterberg Aff., ¶¶ 8-9, Exs.-HWF-Osterberg-2, 3, and 4 PSC Ref. ## 181223, 181225, 181227 and 181229).

**B. Additional Modeling Shows That Power Curtailment Will Achieve Full Compliance With PSC 128.14(3) Sound Limits.**

Since the Commission's invitation to reopen or rehear this matter in the Final Decision is contingent upon further sound modeling, Applicants have provided sound modeling for both turbine models being considered using a 0.0 ground factor with operational parameters demonstrating the Project can be operated in compliance with the PSC 128.14 noise requirements. *See* Exs.-HWF-Blank-3 and 4 (PSC Ref. ## 181221 and 181222). These sound

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<sup>7</sup> Mr. Hessler did raise a general concern about the ability of operators to use turbine noise reduction mode to realize regulatory compliance, but it is clear he was not referring to the specific capabilities of the Nordex N117 or Siemens 2.3 turbines. Moreover, he noted that, even generally speaking, low noise operating modes can reduce the sound level by several decibels. Rebuttal-CW-Hessler-8. Mr. Slaymaker also made a general, and unsupported, claim that operational curtailment often achieves only a one or two decibel reduction; however, this statement is directly refuted by the power curve data set forth in Ex.-HWF-Hankard-3. Direct-Forest-Slaymaker-4. All other witness statements that were critical of relying on curtailment as a strategy were focused on the operator's ability to alleviate annoyance-based complaints, not on compliance with a regulatory noise limit.

modeling runs show no exceedances of the PSC 128.14(3) standards at nonparticipating residences, eliminate any need to infer compliance capability, and demonstrate conclusively that the proposed turbines are capable of complying with PSC 128.14 under the very worst case conditions for the very residences that were of concern during the Commission's discussion. Other than the reduced-power operating parameters, these runs employ the most conservative assumptions available, including a 0.0 ground factor, and noise propagation at maximum power in all directions. *See* Blank Aff., ¶¶2-3. PSC Ref. # 181281. The probability of these conditions occurring at the same time, especially since the last assumption cannot realistically occur, is quite limited. When combined with the evidence already in the record that a 0.5 ground factor assumption is a better predictor of actual noise emissions, (Direct-CW-Hessler-7 to 8; Sur-Surrebuttal-HWF-Hankard-2), the amount of time that wind direction and speed conditions may exceed 45 dBA will be extremely limited. Indeed AWS Truepower ("AWS") estimates that total power production will decrease no more than 1.6 percent (Siemens) or 4.5 percent (Nordex) due to operational curtailments. *See infra* p. 14. Yet to assure that no exceedances occur, the turbines being contemplated will be programmed to automatically ramp down to deal with these very limited occurrences. Under these circumstances, on the basis of the existing record, and the additional sound modeling provided with this Petition, a condition in the order requiring compliance, rather than outright denial, is warranted.<sup>8</sup>

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<sup>8</sup> Applicants note that it would be unnecessarily restrictive for the Commission to impose a condition requiring the turbines to continuously operate at the reduced-power levels reflected in the model runs submitted with this Petition. The models demonstrate that compliance is entirely achievable; the actual turbine programming will utilize the automatic wind-based controls described herein to determine when reduced-power operations are necessary to meet the regulatory noise limits.

**C. Use of Curtailment to Design the Project to Comply with PSC 128.14 is Appropriate and Contemplated in PSC 128.**

In the Final Decision the Commission purportedly “does not make a definitive conclusion regarding whether curtailment should be considered in the design phase. . . .” Final Decision, p. 9. However, the Commission’s interpretation of PSC 128.14(3)(a) constitutes a material error of law because its interpretation, in effect, imposes the nighttime 45 dBA standard at all times making the 50 dBA daytime standard superfluous. PSC 128.14(3)(a) clearly sets forth different noise limits for daytime (50 dBA) and nighttime (45 dBA). As such the turbines in the Project must be designed not to exceed 50 dBA during daytime hours and 45 dBA during nighttime hours. Because worst case conditions could occur during daytime or nighttime hours each turbine must be designed not to exceed 50 dbA during worst case conditions. And, in fact, the sound modeling in the record demonstrates that there are no exceedances of the 50 dBA daytime standard using worst case assumptions including a 0.0 ground factor. Under the rule, however, each turbine meeting the 50 dBA daytime factor must also meet the 45 dBA nighttime factor. For turbines which exceed the 45 dBA standard in the model runs the only way to comply with the nighttime standard is through mitigation because a turbine designed to meet 50 dBA during the day in worst case conditions cannot meet 45 dBA at night in worst case conditions without changing something. PSC 128.14(2)(c) requires that a project be designed to comply with the noise standards under “planned operating conditions.” On its face if the only way to meet the nighttime standard is with mitigation it would be a violation of 128.14(2)(c) to design without mitigation factored into the design. To do otherwise would not be designing “under planned operating conditions.”<sup>9</sup>

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<sup>9</sup> The only other way to interpret the rule so that the 50 dBA standard is not superfluous would be to move the turbines each night which, as Commissioner Callisto noted, would be an absurd requirement. Final Decision, Concurrence and Dissent, p. 3.

When combined with the language in PSC 128.14(3)(c) declaring curtailment “shall” be a form of mitigation, it is difficult to conclude that mitigation should not be considered in the design phase. Any other interpretation of PSC 128.14(3)(a) would require compliance with the nighttime 45 dBA standard at all times making the 50 dBA daytime standard superfluous—a result not supported by the rules of statutory and regulatory rule construction. *Kalal*, 2004 WI 58, ¶ 46.

At the March 1, 2013 open meeting Commissioner Nowak questioned whether curtailment could be used to design the Project to comply with the PSC 128.14. While the discussion above concludes a decision to disallow curtailment to achieve compliance would be inconsistent with the plain language of the rule, Commissioner Nowak appears concerned that a project developer could design without regard to the noise standard, thus placing turbines unreasonably close to residences with the promise to use curtailment to reduce noise impacts. Commissioner Nowak also expressed some concern about how often curtailment would be necessary to comply, presumably with the related concern that a project operator would be less willing to curtail operations on a regular basis. There are two reasons these concerns should not be an issue. First, PSC 128.13 already includes a minimum setback distance of 1250 feet from nonparticipating residences which cannot be violated unless waived by the nonparticipating property owner. This requirement is independent of distances necessary to meet sound limitations. Second, a developer has little incentive to place turbines closer to nonparticipating residences through the use of curtailment because of the negative monetary impact associated with curtailment—the more a turbine is curtailed the greater the financial impact to the project. In the case of Highland, AWS has provided modeling showing the impact of curtailment for the Project. AWS projects that total production for the Project will be reduced 1.6 percent (Siemens)

or 4.5 percent (Nordex) due to curtailments.<sup>10</sup> Osterberg Aff. (2d), ¶2, Ex.-HWF-Osterberg-5. Applicants have concluded this reduction in production output is acceptable and will not negatively impact the Project to a degree that makes the Project uneconomic. *Id.*

Moreover, the Project, as designed, will not require curtailment to satisfy the daytime 50 dBA standard, even under the worst case scenario, and the more realistic modeling using a 0.5 ground factor demonstrates operational curtailment will not be required to meet the 45 dBA nighttime standard. This is not a situation in which Applicant is attempting to use operational curtailment to flaunt the Commission's noise limit regulations; rather, this is precisely the scenario the regulation contemplates.

**D. Under PSC 128.14(4)(b) There is No Burden on the Landowner to Demonstrate Non-compliance with PSC 128.14 Sound Requirements Before Operation of a Turbine is Curtailed.**

The Final Decision misinterprets the impact of curtailment on landowners: "Further use of operational curtailment to ensure compliance with the audible noise standard could often place the burden on the impacted landowner to . . . demonstrate non-compliance before operations are curtailed." Final Decision, pp. 8-9. This statement is inconsistent with the Commission's rule regarding compliance with the sound standards. PSC 128.14(4)(b) squarely puts the burden on the owner of the wind project to test for compliance—not the nonparticipating resident: "Upon receipt of a complaint regarding a violation of the noise standards in sub. (3)(a), an owner shall test for compliance. . . ."<sup>11</sup> The only circumstance where the owner of the wind system need not test is when it can produce an accurate test less than two years old demonstrating compliance.

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<sup>10</sup> This number is conservative given that the model assumes wind is coming from all directions at the same time. Once the turbine is programmed for wind directions at which an exceedance of the sound limit would occur the amount of time the turbine will be actually be curtailed will be less than projected in the model. These results are also conservatively high because the model assumed the applicable turbines were curtailed during all evening hours (10 P.M. to 6 A.M.) over the entire year utilizing a 0.0 ground factor. *Id.*

<sup>11</sup> The definition of "owner" in PSC 128.01(12) makes clear it is the wind system owner or developer that has the obligation not a nonparticipating resident.

Further, this statement fails to recognize that the turbines will be programmed to ramp down automatically at all times when wind speed and direction conditions exist that would produce an exceedance. There is no burden on the landowner to demonstrate non-compliance before the automatic curtailment.

**IV. CONDITIONS ON THIS PROJECT WILL ADEQUATELY PROTECT THE PUBLIC INTEREST, JUST AS CONDITIONS HAVE PROTECTED THE PUBLIC INTEREST FOR COUNTLESS OTHER PROJECTS.**

Issuing Highland a CPCN with a categorical sound limit condition and a post-construction sound testing condition is the appropriate way for the Commission to protect the public interest. Indeed, the Commission routinely issues conditional approvals and the imposition of conditions in conjunction with an agency approval is a tried-and-true method of ensuring compliance with enumerated standards. See, e.g., *City of New Richmond v. DNR*, 145 Wis. 2d 535, 546, 428 N.W.2d 279 (Ct. App. 1988) (noting that DNR properly conditioned an air pollution control permit on the use of a dry scrubber-fabric filter baghouse control system to “reduce the negative impact of [air pollutant] emissions”); *Maple Leaf Farms v. DNR*, 2001 WI App 170, ¶ 29, 247 Wis. 2d 96, 633 N.W.2d 720 (noting that WPDES permit conditions operate “as a means to enforce compliance with surface and groundwater standards”); *Andersen v. DNR*, 2011 WI 19, ¶ 40, 332 Wis. 2d 41, 796 N.W.2d 1 (noting that the federal Clean Water Act gives EPA the authority to review every state-issued discharge permit to determine that it will “ensure compliance with” the Clean Water Act and that permit provisions relating to “reporting, monitoring, or sampling by the permittee are [adequate] to assure compliance with . . . effluent standards and limitations, required by the Clean Water Act”); *Public Intervenor v. DNR*, 156 Wis. 2d 376, 389, 456 N.W.2d 878 (Ct. App. 1990) (recognizing that in the context of approving a conditional grant of exemption from solid waste regulatory requirements DNR properly “based its grant of exemption on future compliance with stated conditions” and, in fact, “would have

been seriously remiss had it not imposed conditions to ensure” a measure of protection to the public health and environment).

In many respects, a condition requiring Highland to construct the Project to comply with sound limits and to demonstrate post-construction operational compliance with a 45 dBA standard is no different than the thousands of monitoring and reporting conditions DNR has imposed to demonstrate compliance with numerical air emission and water pollutant discharge limits. Moreover, it is precisely the method the Commission used to address noise for the *Glacier Hills* project. For *Glacier Hills*, the Commission imposed a 50 dBA noise limit (and the selective imposition of a 45 dBA summer nighttime limit upon receipt of neighbor complaints), required post-construction testing to demonstrate compliance, and specifically authorized operational curtailment as means to achieve compliance. *See* Final Decision, pp. 24, 50 (Jan. 22, 2010) (PSC REF#: 126124).

Denying Highland’s CPCN Application out-of-hand simply because the modeling demonstrates that operational controls *may be required* to meet the numeric (i.e. dBA) limit<sup>12</sup> is akin to DNR denying an air permit application simply because air modeling demonstrates that without a baghouse control certain air quality limits will be exceeded, or denying a wastewater discharge permit application simply because mechanical treatment processes are required to meet certain water quality effluent limits. Just as the Commission recognized that use of operational curtailment, together with post-construction testing, was a valid method for the *Glacier Hills*

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<sup>12</sup> Indeed, it is not certain that any operational controls will actually be required for the Project to meet the 45 dBA standard. The noise modeling procedure employs highly conservative assumptions. Most notably, the typical modeling without operational controls assumes that all turbines are simultaneously operating at full acoustic power and that the noise propagates at maximum power in all directions – these are the worst case conditions. Direct-HWF-Hankard-8. Actual field tests have confirmed that modeling with a 0.5 ground coefficient yields a reliable approximation of actual noise conditions. Direct-CW-Hessler-7:15 to 8:2; Sur-Surrebuttal-HWF-Hankard-2. Indeed, modeling with the 0.5 ground coefficient still produces conservative results. *Id.* Dr. Schomer advocated for the use of the 0.0 ground coefficient, yet he admitted that his supposition that the relevant ISO standard requires use of the 0.0 coefficient is both newly discovered and untested. HWF Reply Br., pp. 1-2. Everyone agrees that the models run with a 0.5 ground coefficient predict that the Project will comply with a 45 dBA regulatory limit.



operator to achieve and demonstrate compliance with established noise limits, the Commission should issue Highland's CPCN with a categorical compliance condition with an identified noise standard, and appropriate post-construction noise compliance demonstration conditions, as it has in the past. Assuring compliance with conditions is a compellingly appropriate method to protect the public interest in this case given that noise limit compliance is the lone issue on which the Commission based its initial decision to deny the CPCN outright, and that there is no evidence in the vast record developed in this proceeding that reasonably controverts Highland's demonstrated ability to meet that requirement.

Moreover, in light of the "stringent procedural requirements of Wis. Stat. § 196.491" that a CPCN applicant must "navigate," the Wisconsin Supreme Court has specifically noted that the Commission's practice of conditionally issuing CPCNs is an approach that "practically speaking . . . works" because it does not "make an applicant start from scratch and begin the [CPCN application] cycle again."<sup>13</sup> *Clean Wisconsin, Inc. v. PSCW*, 2005 WI 93, ¶¶ 228, 261, 282 Wis. 2d 250, 700 N.W.2d 768. The legislature obviously agrees with the Supreme Court's view, as it has unequivocally authorized the Commission to craft appropriate conditions when issuing a CPCN. First, the legislature gave the Commission explicit authority to issue orders with conditions, including compliance testing conditions. Wis. Stat. § 196.395(1). Second, the legislature has directed that when the Commission determines that a CPCN application does not meet the statutory approval criteria, the Commission is explicitly authorized to "approve the application with such modifications as are necessary for an affirmative finding under [the approval criteria]." Wis. Stat. § 196.491(3)(e). In light of the Commissioners' own admitted uncertainty regarding the proper inputs and parameters for conducting noise modeling, it would

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<sup>13</sup> The stringency of the CPCN application process is highlighted by Chairman Montgomery's observation that Highland submitted its application in this proceeding on December 19, 2011, a full 15 months ago.

be wholly appropriate to either approve with conditions or “approve with modifications” Highland’s Application.

With respect to concerns about the Applicant’s initial noise model, a model that was based on a 0.0 ground coefficient and assumed no curtailment, Highland offers for the Commission’s consideration the following three conditions on a CPCN:

- *Highland will utilize only those turbines that have the capability, on an automated basis, to curtail operations, and in doing so to automatically and without further human intervention achieve the sound limits imposed in this order.*
- *Highland will program the individual turbines to curtail power output based on real-time wind speed and directional data to ensure compliance with the PSC 128.14 noise standards.<sup>14</sup>*
- *Upon receipt of a complaint Highland will agree to give Commission staff confidential access to SCADA data to verify the turbines are appropriately scaling down when conditions exist that could cause an exceedance of the 45 dBA nighttime standard.*

Furthermore, the Applicants would agree to perform post-construction noise compliance demonstration testing that accomplishes the following goals:

- *In addition to any testing performed in response to individual noise complaints, Highland will perform post-construction sound compliance measurements annually for three years. Once Highland has demonstrated compliance for three years it need only test for individual noise complaints;*
- *The annual tests will include data during the winter season;*
- *The annual tests will include data obtained during periods of high wind conditions;*
- *In the event the Commission imposes a 40 dBA nighttime limit at the six individual residences of concern, the annual tests will include testing at each of those six residences (to the extent the respective residents consent to such testing); and*

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<sup>14</sup> It would be appropriate to only impose this condition in the winter months (November-March) since conditions the rest of the year are more reflective of a 0.5 ground factor.

- *Highland will provide the Commission with a report based on the post-construction testing that describes the correlation between actual and modeled sound measurements to assist the Commission in evaluating which ground absorption coefficient – 0.0 or 0.5 – more accurately predicts actual sound levels.<sup>15</sup>*

Finally, the Applicants agree to comply with the following conditions that were discussed during the February 14, 2013 Open Meeting:

- *Limit to 40 dBA nighttime sound attributable to the turbines at the six identified residences occupied by potentially sensitive individuals;*
- *Eliminate the Nordex N100 turbine model from consideration;*
- *Perform post-construction sound testing pursuant to the Commission's sound testing protocol;*
- *Fully cooperate with the Commission and staff in order to facilitate third-party sound testing;*
- *Applicants will agree to provide good-neighbor payments consistent with the requirements of PSC 128.33(3);*
- *Coordinate necessary road repairs with the respective towns;*
- *Provide financial assurance in an appropriate amount (see following section for additional comments);*
- *Install collector circuits underground;*
- *Conduct an additional year of bat mortality study, if deemed necessary by WDNR and Commission staff; and*
- *Report to staff any modifications undertaken to accommodate eagles.*

**V. APPLICANT WISHES TO CLARIFY WHICH PROVISIONS OF PSC 128 IT IS AGREEING TO COMPLY WITH AND REQUESTS THE 180 DAY TIME PERIOD FOR THE TOWN AND APPLICANTS TO AGREE ON DECOMMISSIONING ESTIMATORS BE SIGNIFICANTLY REDUCED**

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<sup>15</sup> In the event the 0.5 ground factor model runs prove to be a better predictor of actual post construction measurements, Applicant requests the ability to eliminate the use of curtailment since under the 0.5 run there are no exceedances of the 45 dBA nighttime limit.

The Commission in the Final Decision indicated the record was not clear with regard to which provisions Applicant intended to comply with in PSC 128. Final Decision, p. 23. In footnote 9 on page 23 of the Final Decision there is a list of PSC 128 provisions put together by Commission staff with which they believe Applicant has agreed to comply. The list contained in footnote 9 is accurate with one revision and some additions. Footnote 9 lists various subsections of PSC 128.18 but Applicant is intending to comply with all provisions in PSC 128.18. In addition to the sections of PSC 128 listed in footnote 9 Applicant intends to also comply with PSC 128.13(1) (setbacks), PSC 128.17 (stray voltage) and PSC 128.33(3) (monetary compensation).

The only deviation from PSC 128 that Applicant seeks is a variation of PSC 128.19 regarding decommissioning. Applicants agree with Commissioner Callisto's suggestion at the February 14, 2013 open meeting that PSCW Staff act in lieu of the Town in determining the decommissioning cost estimators and to process any complaints that may arise in the future regarding decommissioning requirements. The obvious reason is that the issue of decommissioning cost in the proceeding was heavily contested by the Town and given the Town's posture in the proceeding there is significant concern about whether the Town and Applicant will be able to agree on legitimate estimators for the decommissioning cost estimates. Commissioner Callisto's suggestion to have staff play the Town's role is consistent with Commission practice generally, by which Staff oversees compliance with Commission order points and conditions. Moreover, it is consistent with the overall applicability to this Project of the other matters addressed by PSC 128, Subchapter II. As to those Subchapter II issues such as siting criteria (PSC 128.13), noise criteria (PSC 128.14), shadow flicker criteria (PSC 128.15), and signal interference (PSC 128.16), staff monitors compliance with CPCN approval

conditions. It follows that staff would similarly supervise compliance with any decommissioning conditions pursuant to PSC 128.19.

Nevertheless, if the Commission insists that Applicants and the Town work together to identify decommissioning cost estimators, as suggested by Chairman Montgomery and Commissioner Nowak, Applicants respectfully request that the parties be given only 30 days to mutually agree on the experts. If they are unable to reach agreement in that timeframe, and if Highland can demonstrate to Staff's satisfaction that it participated in good faith in an effort to reach agreement, then staff should superintend the process. This approach will avoid the possibility of additional unreasonable delay on top of that which the Applicants have already endured. An additional delay of up to six months on this issue alone could very likely stifle timely development of the Project and jeopardize the availability of production tax credits.

## **VI. REQUESTED PROCEDURE**

In the event the Commission agrees to grant rehearing Wis. Stat. § 227.49(6) directs an agency to "set the matter for further proceedings as soon as practicable." Applicant has already been subject to substantial delays and is in danger of potentially losing the ability to finance the Project using production tax credits. As such Applicant respectfully requests the Commission, in its order granting rehearing or reopening, to issue a procedural schedule which will bring this matter to conclusion quickly. Applicant requests that the order limit the rehearing to those issues referenced herein, grant the interveners ten days to submit any rebuttal to the new evidence supporting or submitted with this Petition, and set a hearing no later than five days after the submission of interveners' rebuttal. Applicant further requests that the Commissioners be present at the hearing so that they can question the parties and deliberate at the conclusion of the hearing. This will help avoid the need for a protracted period of briefing and bring the matter to conclusion expeditiously.

## CONCLUSION

For the foregoing reasons Applicant respectfully requests the Commission to reopen or grant rehearing in this proceeding and set a procedural schedule as described above so that this matter can be concluded expeditiously.

Respectfully submitted this 4th day of April, 2013.

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